

ONKYO SERVICE MANUAL

STEREO CASSETTE TAPE DECK MODEL TA-207

Black and Silver model

UND, UDC, UD	120V AC, 60Hz
UP	230V AC, 50Hz
UW	120V or 220V AC, 50/60Hz
UQA	240V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!
 COMPONENTS INDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

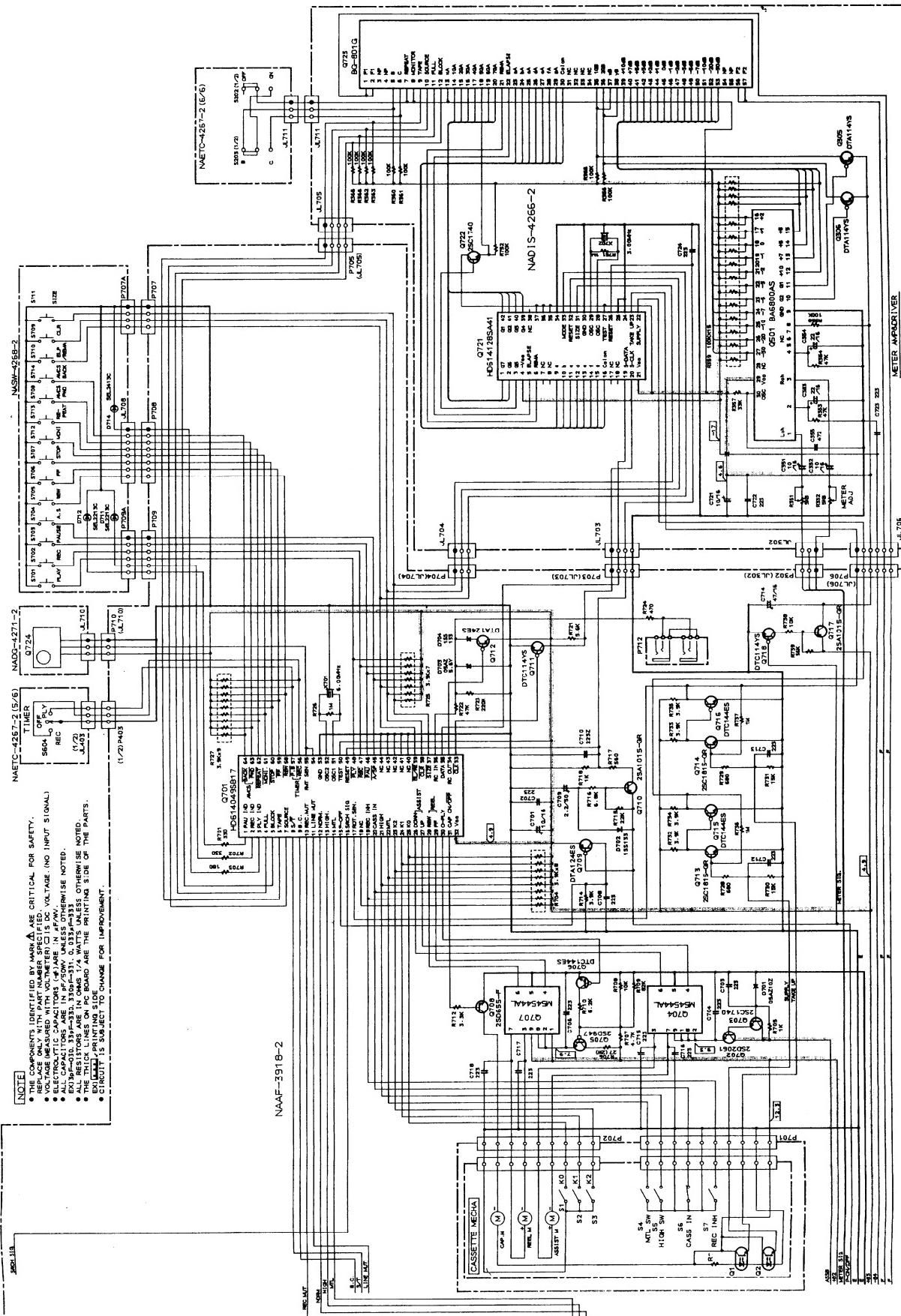
Track Format: 4-tracks, 2-channels
 Erasing System: AC erase
 Tape Speed: 4.8 cm/sec. (1-7/8 i.p.s.)
 Wow and Flutter: 0.04% (WRMS)
 Frequency Response: 20–18,000Hz (Normal)
 (30–17,000Hz ± 3dB)
 20–19,000Hz (High)
 (30–18,000Hz ± 3dB)
 20–20,000Hz (Metal)
 (30–19,000Hz ± 3dB)

S/N Ratio: 60dB (metal tape, Dolby NR off)
 A noise reduction of 10dB above 5kHz and 5dB at 1kHz is possible with Dolby B NR. A noise reduction of 20dB at 5kHz is possible with Dolby C NR.
 Input Jacks: LINE IN: 2
 Input sensitivity: 80mV
 Input impedance: 50kohms
 Outputs: LINE OUT: 2
 Standard output level: 500mV (0dB)
 Optimum load impedance: over 50 kohms
 Headphone jack: 1
 Optimum load impedance: 8 to 200 ohms
 Motors: DC servo motor: 1
 DC motor: 2
 Heads: REC/PB: Special Hard Permalloy x 2
 Erase head: Ferrite x 1
 Power Supply Rating: U.K. and Australian models:
 AC 240V, 50Hz
 U.S.A. and Canadian models:
 AC 120V, 60Hz
 Worldwide models:
 AC 120V and 220V switchable, 50/60Hz
 Power Consumption: 25 watts
 Dimensions: 455(W) x 131(H) x 368(D)mm
 (17-15/16" x 5-3/16" x 14-1/2")
 Weight: 6.8 kg. (15 lbs.)
 Supplied Accessories: Connecting cable x 2
 RC-214K remote control transmitter
 UM-4/R03/AAA battery x 2

Specifications and external appearance are subject to change without notice because of product improvements.

ONKYO®
AUDIO COMPONENTS

SCHEMATIC DIAGRAM (2/2)



UNITED WE ARE NEVER

ONTARIO CORPORATION

SCHEMATIC DIAGRAM (1/2)

A B

C

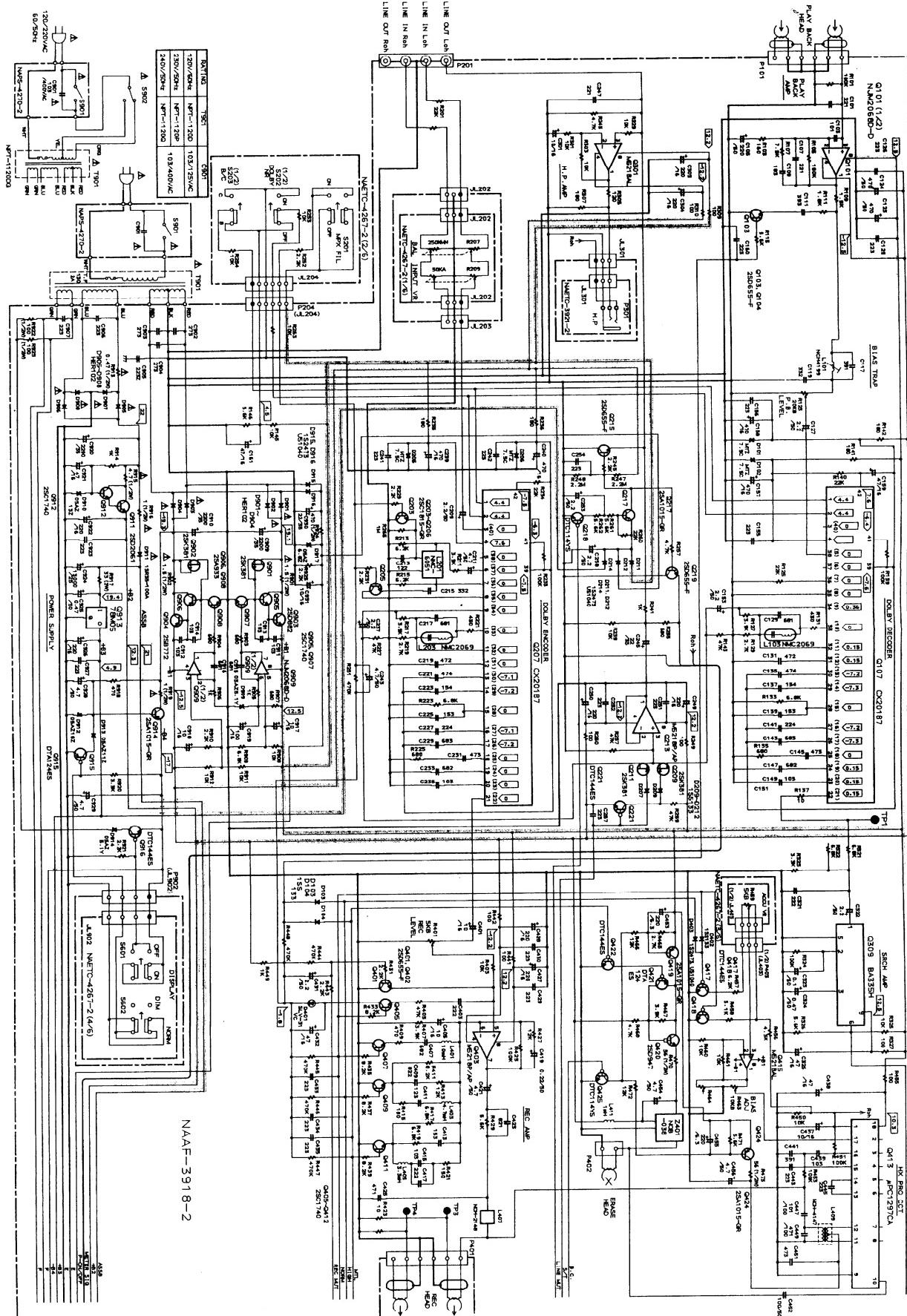
D

E

F

G

TAZ-207



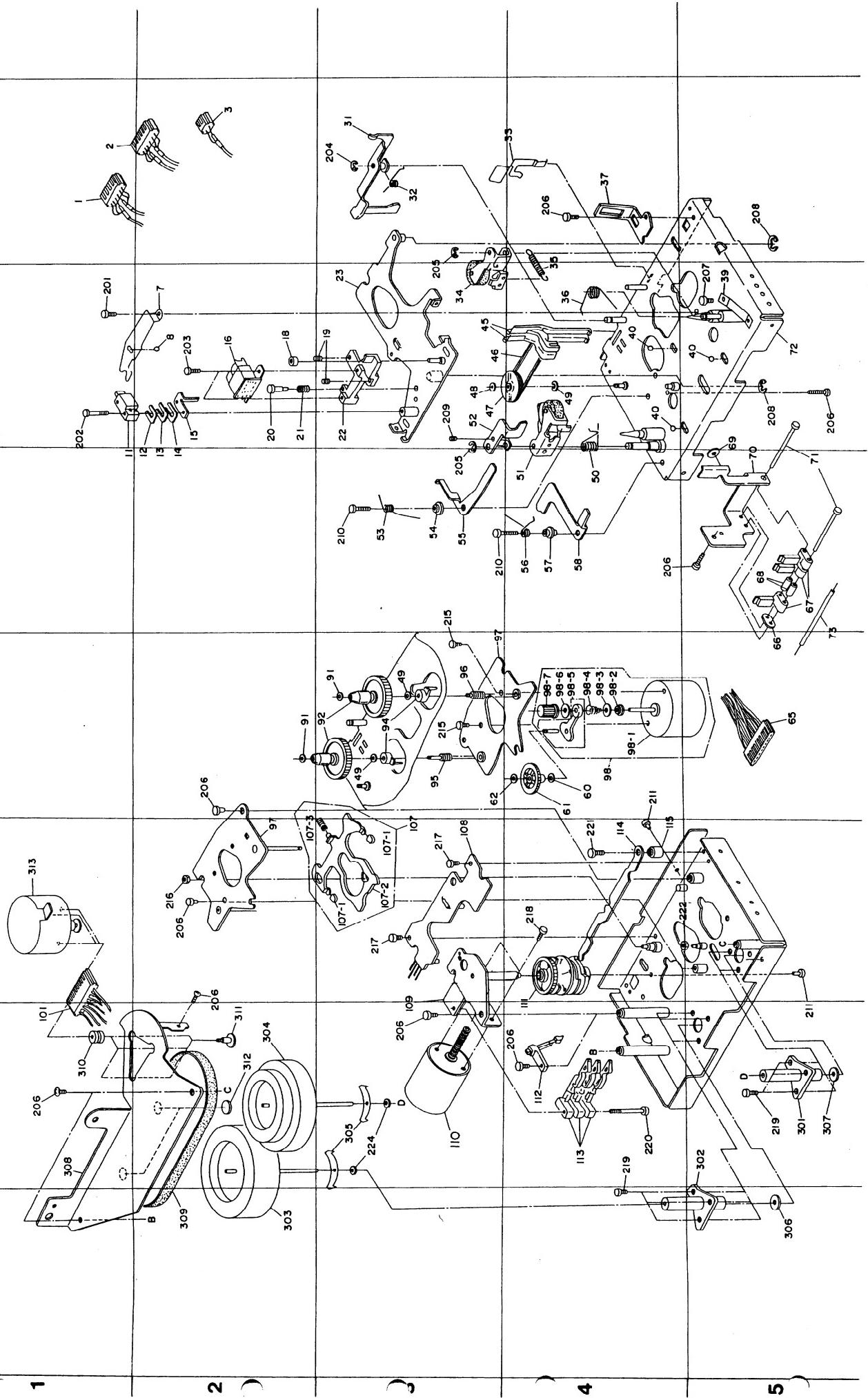
TAPE MECHANISM-EXPLODED VIEW

6

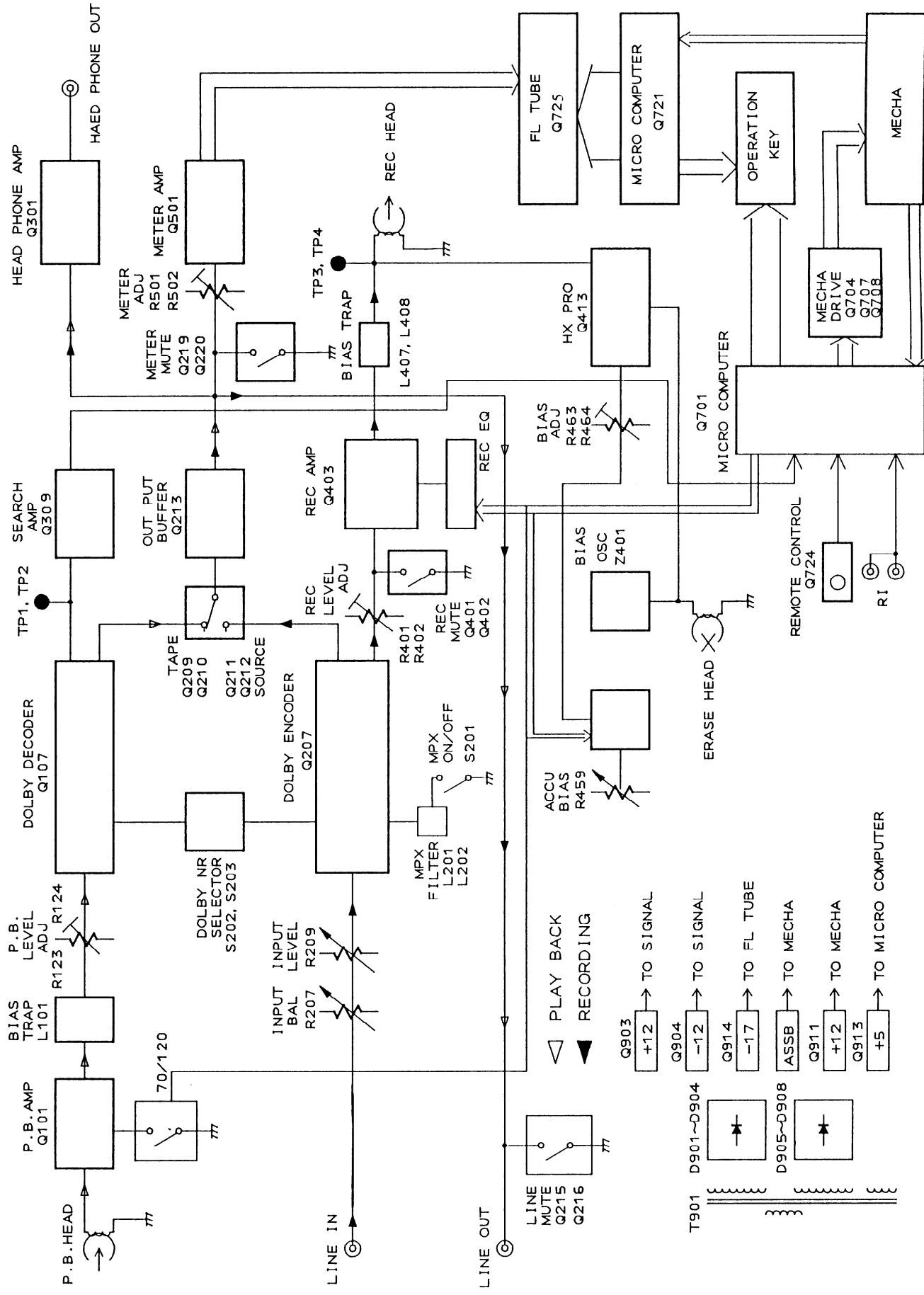
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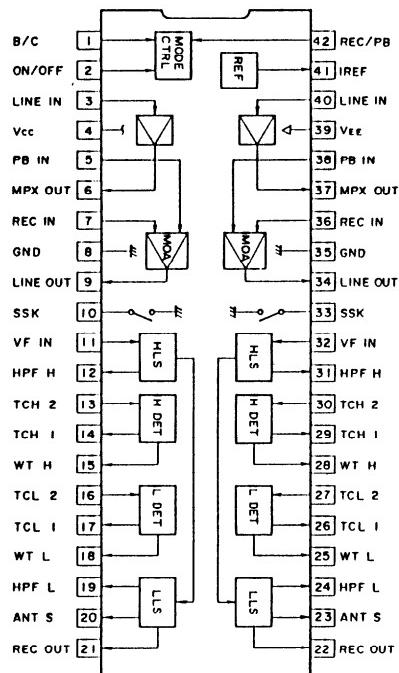


BLOCK DIAGRAM

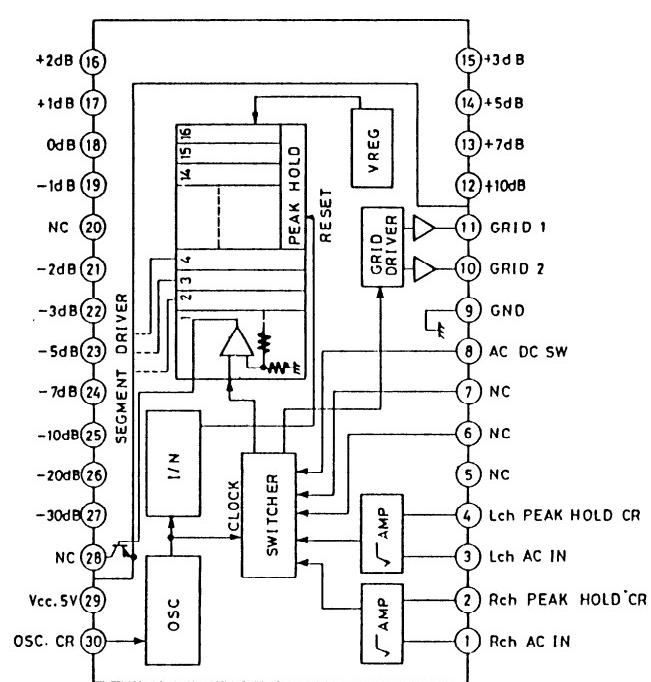


IC BLOCK DIAGRAM

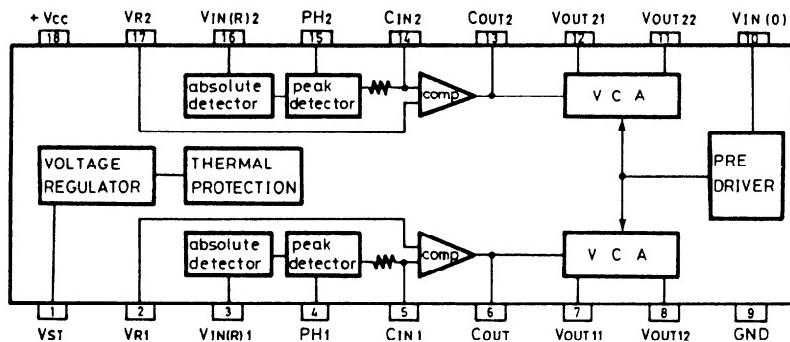
CX20187 (DOLBY NR)



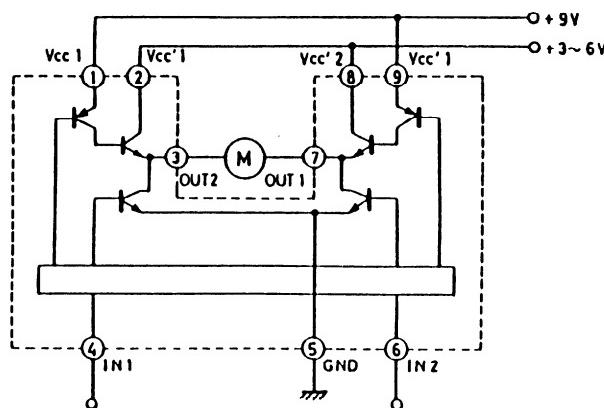
BA6800AS (METER DRIVE)



μ PC1297CA (HX PRO)



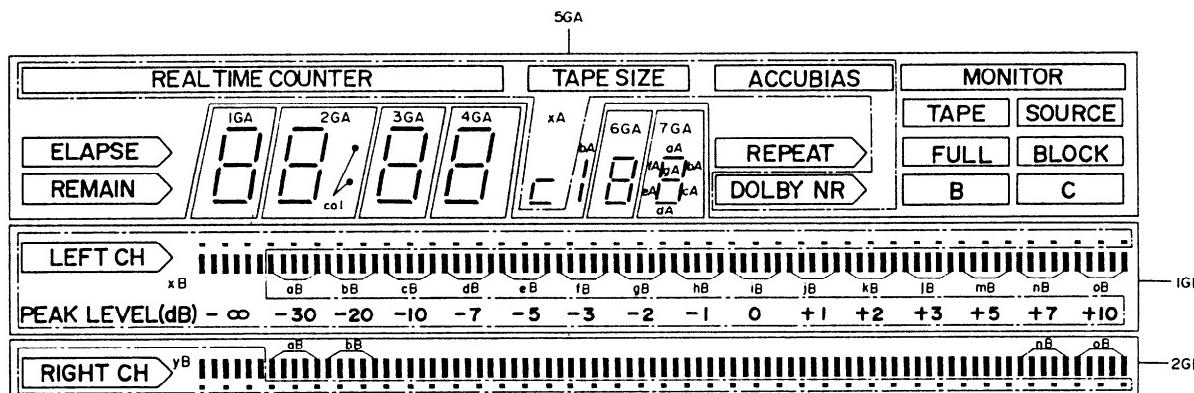
M54544AL (MOTOR DRIVE)



INPUT		OUTPUT		Remark
# 4	# 6	# 3	# 7	
L	L	OFF	OFF	—
H	L	H	L	FWD
L	H	L	H	REV
H	H	L	L	Brake

BG-801G (DISPLAY TUBE)

GRID ASSIGNMENT



PIN CONNECTION

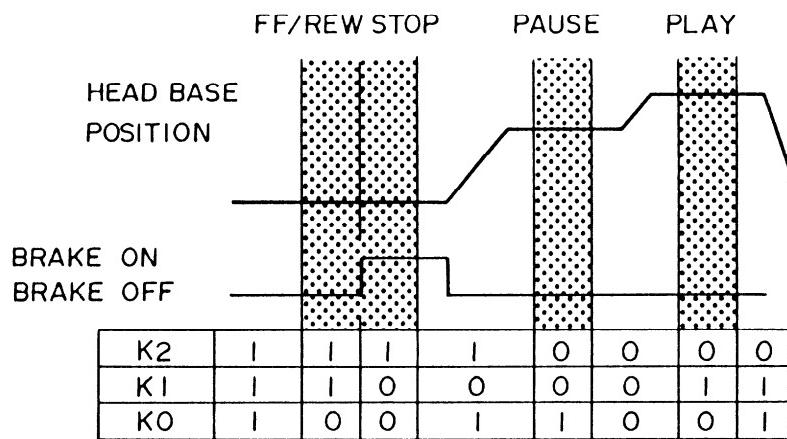
PIN NO.	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
CONNECTION	n B	o B	y B	x B	2G B	1G B	N C	N C	N C	N C	N C	h A	g A	f A	e A	d A	c A	b A	a A	j A	i A	7G A	6G A	5G A	4G A	3G A	2G A	1G A	x A	p A	o A	n A	m A	l A	k A	r A	q A	N A	N A	F A	F A
PIN NO.	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41																								
CONNECTION	F 2	F 2	N P	N P	a B	b B	c B	d B	e B	f B	g B	h B	i B	j B	k B	l B	m B																								

Note
 1.)NP.....No pin.
 2.)NC.....No connection
 3.)F1,F2.....Filament
 4.)ICA~7GA....Grid
 5.)1CB~2GB....Grid

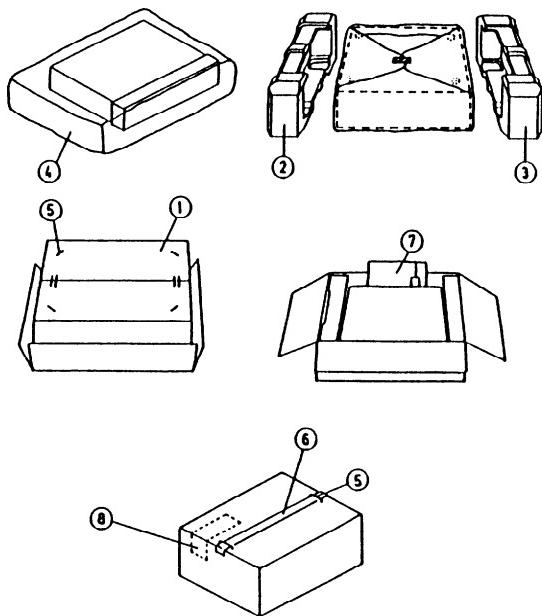
ANODE CONNECTION

	1GA	2GA	3GA	4GA	5GA	6GA	7GA		1GB	2GB
aA	aA	aA	aA	aA	-	aA	aA			
bA	bA	bA	bA	bA	/	bA	bA			
cA	cA	cA	cA	cA	-	cA	cA			
dA	dA	dA	dA	dA	-	dA	dA			
eA	eA	eA	eA	eA	-	eA	eA			
fA	fA	fA	fA	fA	-	fA	fA			
gA	gA	gA	gA	gA	-	gA	gA			
hA	-	col	-	-	-	-	-			
iA	-	-	-	-	REMAIN>	-	-			
jA	-	-	-	-	ELAPSE>	-	-			
kA	-	-	-	-	REPEAT>	-	-			
lA	-	-	-	-	MONITOR	-	-			
mA	-	-	-	-	TAPE	-	-			
nA	-	-	-	-	SOURCE	-	-			
oA	-	-	-	-	FULL	-	-			
pA	-	-	-	-	BLOCK	-	-			
qA	-	-	-	-	B	-	-			
rA	-	-	-	-	C	-	-			
xA	-	-	-	-	REAL TIME COUNTER	-	-			
					TAPE SIZE	-	-			
					ACCUBIAS	-	-			
					DOLBY NR	-	-			
xB	-	-	-	-	LEFT CH	-	-			
					PEAK LEVEL (dB) ~ +10	-	-			
yB	-	-	-	-	RIGHT CH	-	-			

MECHANICAL POSITION CORD



PACKING VIEW



PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	29052290	Master carton box (Black model)
	29052290-3	Master carton box (Silver model)
2	29091518A	Pad (L)
3	29091519A	Pad (R)
4	29095012-1	Protection sheet
	29100105	620x550x Poly bag
	29095608	200x40x2t, Protection sheet (Cassette lid)
5	282301	Sealing hook
6	2911007-1	Damplon tape
ACCESSORY BAG ASS'Y		
7	29341668	Instruction manual
	2010098A	Connection cable
	29100006A	350x250 Poly bag
	24140214	RC-214K, remote unit
	3010124	UM-4, batteries
	29365024A	Warranty card (F)
	25055040	CV plug CV-K-2 (W)

NOTE [W]: Only Worldwide model
[F]: Only French model

PRINTED CIRCUIT BOARD PARTS LIST

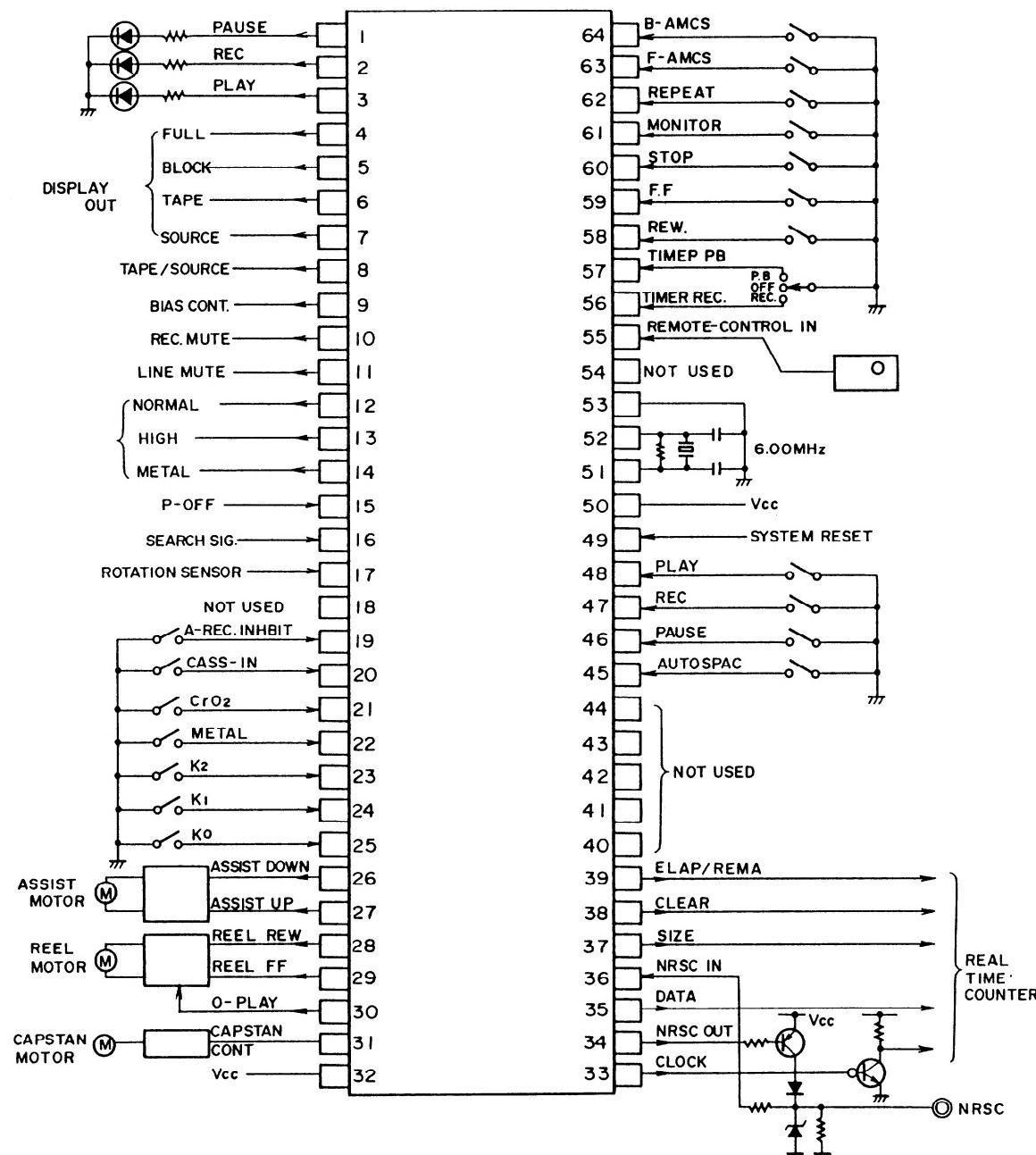
NAAF-3918-2

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION			
Ics								
Q101	222956	NJM-2068D-D	Q912	2202116	2SD2061-F			
Q107	222999	CX-20187		2213284 or	2SC1740S-R or			
Q207	222999	CX-20187	Q914	2213285	2SC1740S-S			
Q213	22240369	M5218AP	Q915	2211455	2SA1015-GR			
Q301	22240368	M5218AL	Q916	2212600	DTA124ES			
Q309	222940	BA335H		221282 or	DTC144ES or			
Q403	22240369	M5218AP		2213560	RN1204			
Q413	222959	μ PC1297CA	Diodes					
Q415	22240368	M5218AL	D101, D102	224450753	MTZ7.5C			
Q701	22240542	HD614049SB17	D103, D104	223163	1SS133			
Q704	222953	M-54544AL	D205, D206	224450753	MTZ7.5C			
Q707	222953	M-54544AL	D207-D210	223163	1SS133			
Q909	222956	NJM-2068D-D	D211, D212	223124 or	1S2473 or			
Q913	222780055MIT	78M05		223150	US1040			
Transistors								
Q103, Q104	2211706	2SD655-F	D213	223163	1SS133			
Q203-Q206	2211255	2SC1815-GR	D214	223124 or	1S2473 or			
Q209-Q212	2212304 or 2212305	2SK381-D or 2SK381-E		223150	US1040			
Q215, Q216	2211706	2SD655-F	D401	225227	SLV-31VC			
Q217	2211455	2SA1015-GR	D402	223163	1SS133			
Q218	221281 or 2213570	DTC114YS or RN1207	D403	223124 or	1S2473 or			
Q219, Q220	2211706	2SD655-F	D701	224451004 or 224151004	MTZ10D or 05AZ10R			
Q221	221282 or 2213560	DTC144ES or RN1204	D702	223163	1SS133			
Q401, Q402	2211706	2SD655-F	D703	224150562	05AZ5.6Y			
Q405-Q412	2213284 or 2213285	2SC1740S-R or 2SC1740S-S	D704	223163	1SS133			
Q417, Q418	221282 or 2213560	DTC144ES or RN1204	D901-D908	22380029	HER102			
Q419	2211455	2SA1015-GR	D909	224150512	05AZ5.1Y			
Q420	2201540	2SD947	D910	224151303	05AZ13Z			
Q421	2212600	DTA124ES	D911	22380027	1SR35-100A			
Q422	221282 or 2213560	DTC144ES or RN1204	D912	224151803	05AZ18Z			
Q424	2211455	2SA1015-GR	D913	224151103	05AZ11Z			
Q425	221281 or 2213570	DTC114YS or RN1207	D914	224150512	05AZ5.1Y			
Q702	2202115 or 2202116	2SD2061-E or 2SD2061-F	D915, D916	223124 or 223150	1S2473 or US1040			
Q703	2213284 or 2213285	2SC1740S-R or 2SC1740S-S	D917	224150683	05AZ6.8Z			
Q705	2201540	2SD947	Coils					
Q706	221282 or 2213560	DTC144ES or RN1204	L101, L102	231147	NCH-4199			
Q708	2211706	2SD655-F	L103, L104	233382	NMC-2069			
Q709	2212600	DTA124ES	L201, L202	233328	NMC-6051			
Q710	2211455	2SA1015-GR	L203, L204	233382	NMC-2069			
Q711	221281 or 2213570	DTC114YS or RN1207	L401, L402	231089	NCH-2137			
Q712	2212600	DTA124ES	L403, L404	231085	NCH-2133			
Q713, Q714	2211255	2SC1815-GR	L405, L406	231083	NCH-2131			
Q715, Q716	221282 or 2213560	DTC144ES or RN1204	L407, L408	231101	NCH-2148			
Q717	2211455	2SA1015-GR	L409, L410	231100	NCH-4147			
Q718	221281 or 2213570	DTC114YS or RN1207	L411	231077	NCH-2125			
Q901, Q902	2212304 or 2212305	2SK381-D or 2SK381-E	Z401	231149	NOB-038			
Q903, Q904	2201275 or 2201276	2SB772-Q or 2SB772-P	Ceramic osc					
Q905, Q907	2213284 or 2213285	2SC1740S-R or 2SC1740S-S	X701	3010149	CST6.00MGW			
Q906-Q908	2213354 or 2213355	2SA933S-R or 2SA933S-S	Capacitors					
Q911	2202115 or	2SD2061-E or	C101, C102	372122214	220PF50V, ST.			
			C105, C106	391982217	220 μ F50V, ELECT.			
			C123, C124	391984717	470 μ F50V, ELECT.			
			C127, C128	391980227	2.2 μ F50V, ELECT.			
			C153, C154	391980227	47 μ F16V, ELECT.			
			C157, C158	391944717	470 μ F16V, ELECT.			
			C159, C161	391944707	47 μ F16V, ELECT.			
			C209, C210	391980227	2.2 μ F50V, ELECT.			
			C211, C212	391980477	4.7 μ F50V, ELECT.			
			C237, C238	391980227	2.2 μ F50V, ELECT.			
			C239, C240	391944717	470 μ F16V, ELECT.			
			C243	391980477	4.7 μ F50V, ELECT.			
			C245, C246	391962207	22 μ F35V, ELECT.			
			C249, C250	391942217	220 μ F16V, ELECT.			
			C253	391980227	2.2 μ F50V, ELECT.			
			C258	391980227	2.2 μ F50V, ELECT.			

PRINTED CIRCUIT BOARD PARTS LIST

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
C301, C302	391941007	10 μ F16V, ELECT.	P710	25050267	NSCT-3P95
C303, C304	391942217	220 μ F16V, ELECT.	P712	25045172	HSJ1003-01-020
C322	391980227	2.2 μ F50V, ELECT.	P902	25050268	NSCT-4P96
C323	391981097	0.1 μ F50V, ELECT.	Miscellaneous		
C324	391984797	0.47 μ F50V, ELECT.	27141059	BRACKET, EARTH	
C325	391944707	47 μ F16V, ELECT.	27160029-1	RAD-07B, RADIATOR	
C401, C402	391941007	47 μ F16V, ELECT.	27160211-1	RAD-68B, RADIATOR	
C405, C406	391941007	10 μ F16V, ELECT.	27160211	RAD-68, RADIATOR	
C419, C420	391982297	0.22 μ F50V, ELECT.	27160029	RAD-07, RADIATOR	
C421, C422	391980477	4.7 μ F50V, ELECT.	82143006	3P+6FN(BC), SCREW	
C427, C428	391942217	220 μ F16V, ELECT.			
C431	391980227	2.2 μ F50V, ELECT.			
C432	391944707	47 μ F16V, ELECT.			
C437	391941007	10 μ F16V, ELECT.			
C438	391944707	47 μ F16V, ELECT.			
C453, C455	391922217	220 μ F6.3V, ELECT.			
C454, C456	391980477	4.7 μ F50V, ELECT.			
C701	391941007	10 μ F16V, ELECT.			
C709	391980227	2.2 μ F50V, ELECT.			
C714	391944707	47 μ F16V, ELECT.			
C909, C910	391962227	2200 μ F35V, ELECT.			
C917, C918	391941007	10 μ F16V, ELECT.			
C919	391941017	100 μ F16V, ELECT.			
C920	391962227	2200 μ F35V, ELECT.			
C921	391944707	47 μ F16V, ELECT.			
C922	391942217	220 μ F16V, ELECT.			
C924	3504251	13000 μ F25V, ELECT.			
C925	391984797	0.47 μ F50V, ELECT.			
C926	391942217	220 μ F16V, ELECT.			
C928, C929	391980477	4.7 μ F50V, ELECT.			
C930	393062207	22 μ F35V, ELECT.			
C931	391941007	10 μ F16V, ELECT.			
Resistors					
R123, R124	5210218	N06HR20KBD			
R401, R402	5210216	N06HR5KBD			
R463, R464	5210217	N06HR10KBD			
R470	442525604F	RS1/2WBJ 56 Ω			
R473	442525604F	RS1/2WBJ 56 Ω			
R704	49163392408	3.9K Ω \times 8, 1/10W			
R706	441722704F	RS2WBJ27 Ω			
R725	49163392407	3.9K Ω \times 7, 1/10W			
R727	49163392409	3.9K Ω \times 9, 1/10W			
R901, R902	442520154F	RS1/2WBJ 1.5 Ω			
R913	442524794F	RS1/2WBJ 0.47 Ω			
R915, R916	442520104F	RS1/2WBJ 1 Ω			
R917	441723304F	RS2WBJ 33 Ω			
R919	442520104F	RS1/2WBJ 1 Ω			
R922, R923	442521014F	RS1/2WBJ 100 Ω			
R924	442524714F	RS1/2WBJ 470 Ω			
Plug, Socket					
P101	25055136	NPLG-6P120			
P201	25045165	4PDBL-59			
P202, P203	25050267	NSCT-3P951			
P204	25050270	NSCT-6P98			
P302	25050267	NSCT-3P95			
P401	25055136	NPLG-6P120			
P402	25055132	NPLG-2P116			
P403	25050270	NSCT-6P98			
P501	25050267	NSCT-3P95			
P701	25055139	NPLG-9P123			
P702	25055140	NPLG-10P124			
P703	25050266	NSCT-4P96			
P704	25050267	NSCT-3P95			
P705	25050268	NSCT-4P96			
P706	25050270	NSCT-6P98			
P707	25055134	NPLG-4P118			
P708	25050272	NSCT-8P100			
P709	25050528	NSCT-6P351			

MICRO COMPUTER (HD614049SB17)



MICRO COMPUTER TERMINAL DESCRIPTION(HD614049SB17)

Port No.	Name	Function
1	PAUSE LED	Pause indicator output
2	REC. LED	Record indicator output
3	PLAY LED	Play indicator output
4	FULL	Full repeat indicator output
5	BLOCK	Block repeat indicator output
6	TAPE	Tape monitor indicator output
7	SOURCE	Source monitor indicator output
8	TAPE/SOURCE	Monitor (tape/source) select output
9	BIAS CONTROL	Bias oscillator control output
10	REC. MUTE	Record muting output
11	LINE MUTE	Line muting output
12	NORMAL	Normal tape end detection output
13	HIGH	High tape end detection output
14	METAL	Metal tape end detection output
15	P-OFF	Power off detection input
16	SEARCH SIG.	Search signal input
17	ROTATION SENSOR	Reel rotation signal sensor input
18	NOT USED	
19	SIDE-A REC. INHIBITING	Side-A record inhibit pin sensor
20	CASSETTE IN	Cassette tape sensor switch input
21	CrO ₂	Tape type sensor switch input
22	METAL SWITCH	Tape type sensor switch input
23~25	MECHA. POSITION K2~K0	Mecha position sensor switch input
24	ASSIST DOWN	Assist motor drive output
27	ASSIST UP	Assist motor drive output
28	REEL REW	Reel motor REW rotation control output
29	REEL FF	Reel motor FF rotation control output
30	O-PLAY	Reel motor rotation torque control output
31	CAPSTAN CONTROL	capstan motor control output
32	V _{CC}	+5V
33	CLOCK	Master-slave communication clock output
34	NRSC OUT	serial code reciprocal control signal out
35	DATA OUT	Master-slave communication data output
36	NRSC IN	Serial code reciprocal control signal input
37	COUNTER SIZE	Tape size select output
38	COUNTER CLEAR	Tape counter clear output
39	COUNTER ELAP/REMA	Tape elapse/remain select output
40~44	NOT USED	
45	AUTO SPACE KEY	Auto space key input
46	PAUSE KEY	Pause key input
47	REC KEY	Record key input
48	PLAY KEY	Play key input
49	SYSTEM RESET	Computer system reset
50	TEST	
51, 52	OSCI, OSC2	System clock oscillator terminal
53	GND	
54	NOT USED	
55	REMOTE-CONTROL IN	Remote control signal input
56	TIMER REC.	Timer record input
57	TIMER PB.	Timer play input
58	REW KEY	REW key input
59	FF KEY	FF key input
60	STOP KEY	Stop key input
61	MONITOR KEY	Monitor select key input
62	REPEAT KEY	Repeat key input
63	F-AMCS KEY	FWD play search signal input
64	B-AMCS KEY	REV play search signal input

ADJUSTMENT PROCEDURES

PRECAUTIONS

1. Before adjustment, clean the following parts with an alcohol moistened swab.
 - * record/playback head * erase head
 - * pinch roller * capstan
2. Do not use magnetized screwdriver for adjustments.
3. Demagnetize record/playback head with a head demagnetizer.

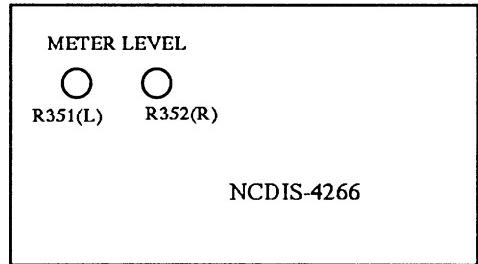
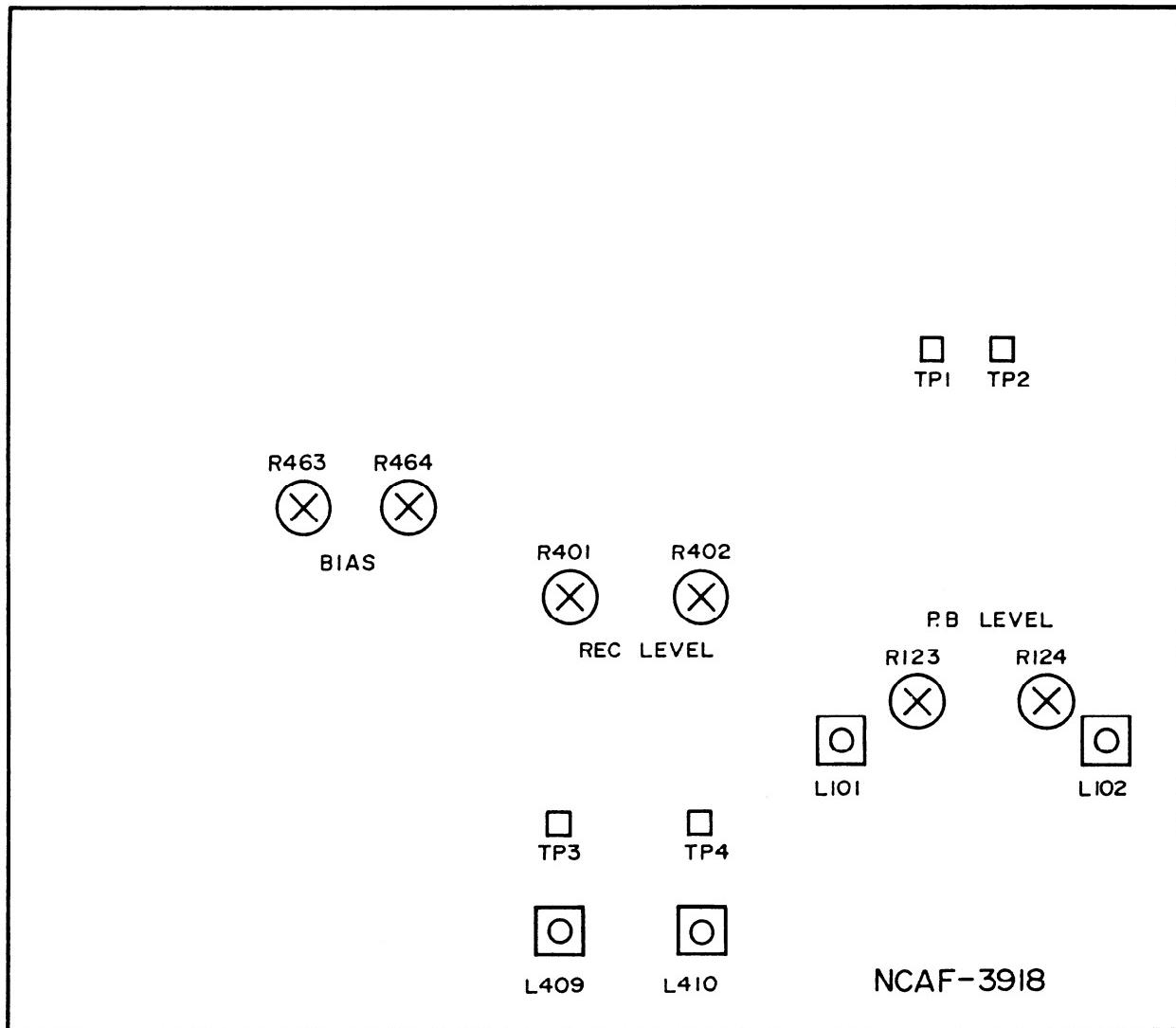
TEST EQUIPMENT/TOOLS REQUIRED:

Audio oscillator
 Digital frequency counter
 Oscilloscope
 Attenuator
 AC voltmeter
 Non-magnetic screw driver
 Test tapes
 TCC-153 : 10 KHz, -10dB
 MTT-111 : 3 kHz, -10dB
 MTT-150 : Dolby level calibration
 400Hz, tone 200nWb/m

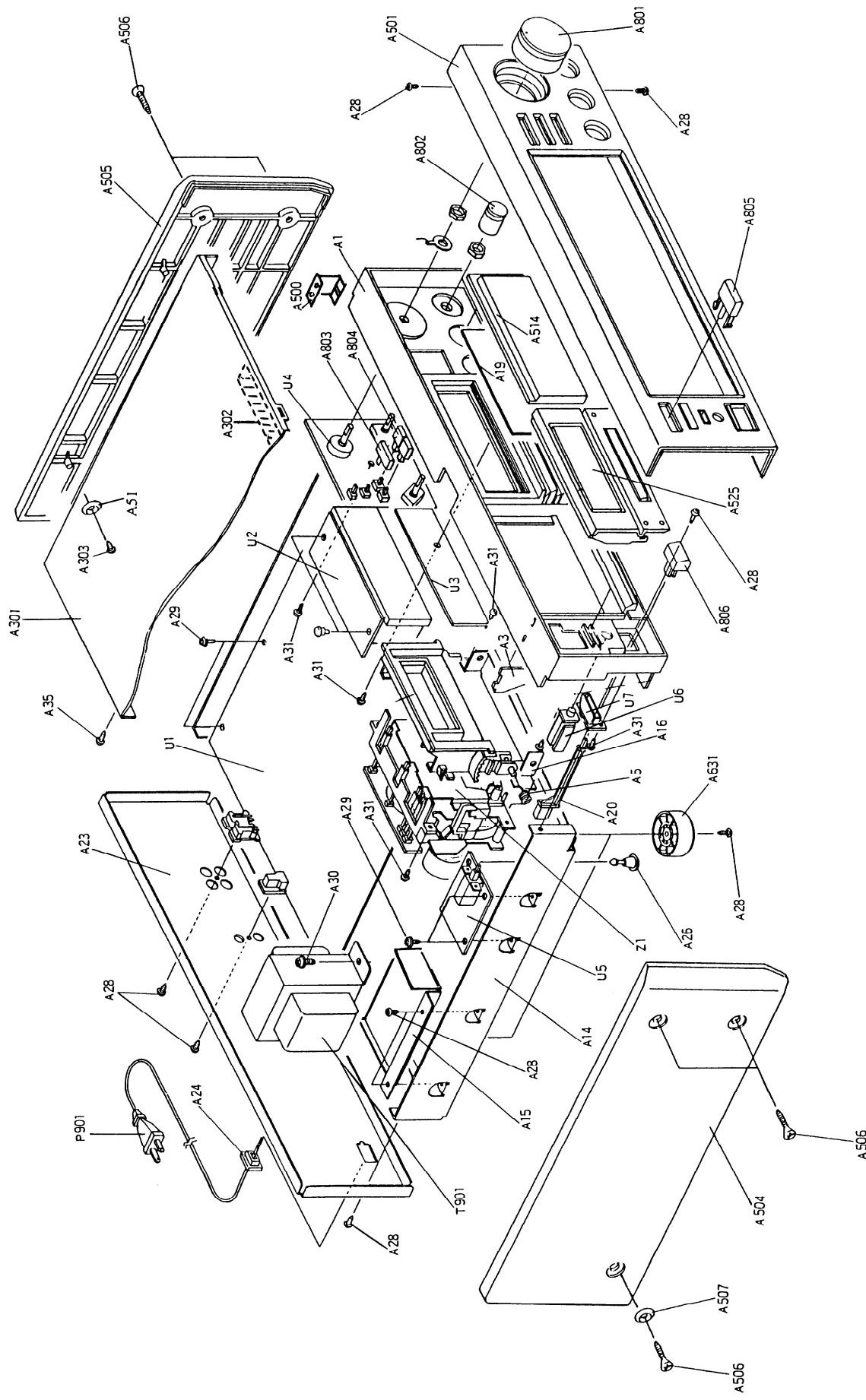
Item		Connection of instrument	Line input	Test tape	Mode	Output indicator	Adjustment point	Adjust	Remarks
1	Tape speed	Frequency counter to LINE output terminal		MTT-111	PB	Frequency counter	Semi-fixed on the motor	3,005 to 3,010Hz	
2	Head azimuth	AC voltmeter and oscilloscope to Line output terminal		TCC-153	PB	AC voltmeter	Head azimuth screw	Maximum and same phase at channels L and R	
3	Playback level	AC voltmeter to terminals TP-L and TP-R		MTT-150	PB	AC voltmeter	R-123 (Ch. L) R-124 (Ch. R)	245mV	
4	Meter			MTT-150	PB	Level meter	R-351 (Ch. L) R-352 (Ch. R)	0db	NADIS4266-2
5	HX-PRO	AC voltmeter to terminals TP-3 and TP-4		METAL TAPE	REC	AC voltmeter	L-409 (Ch.L) L-410 (Ch.R)	Maximum	R-463 R-464 MAX
6	Bias current	AC voltmeter to LINE output terminal	1kHz, -20dB and 12kHz, -20dB	NEW XL-II90	REC/PB	AC voltmeter	R463 (Ch.L) R464 (Ch.R)	Same level at REC/PB	Input VR maximum.
7	Record level		1kHz		REC	AC voltmeter	Attenuator or AF OSC output	350mV	Input VR maximum
					REC/PB	AC voltmeter	R401 (Ch.L) R402 (Ch.R)	Same level at REC/PB	
8	Bias trap	AC voltmeter to LINE output terminal		METAL TAPE	REC	AC voltmeter	L-101 (Ch. L) L-102 (Ch. R)	Min bias leakage	

Blank tape
 NORMAL ... NEW UD-1 C-90
 HIGH ... XL-II C-90
 METAL ... XS- C60
 PLAY torque ... 35~60g/cm
 FF. REW torque ... 70~180g/cm
 Back tension ... 2~7g/cm

ADJUSTMENT POINT



CHASSIS-EXPLODED VIEW



CHASSIS-EXPLODED VIEW PARTS LIST

REFNO.	PARTS NO.	DESCRIPTION	REF.NO.	PARTS NO.	DESCRIPTION
A1	27110662A	FRONT BRACKET AS (B)	A803	28324477	KNOB (MPX) (B)
	27110663A	FRONT BRACKET AS (S)		28324478	KNOB (MPX) (S)
A3	27273143	JOINT (EJ)	A804	28324479	KNOB (PUSH) (B)
A14	27100247	CHASSIS		28324480	KNOB (PUSH) (S)
A15	27130608E	BRACKET (PT)	A805	28323985	KNOB (EJ) (B)
A16	27130662	BRACKET (MECHNISM)		28324337	KNOB (EJ) (S)
A19	28133268	BACK PLATE	A806	28324397	KNOB AS (POW) (B)
A20	27273069A	JOINT (POW)		28324398	KNOB AS (POW) (S)
A23	27121500	BACK PANEL (D)	P901	▲ 253168	AC CORD, AS UC-6618 (D)
	27121500-1	BACK PANEL (P)		▲ 253149	AC CORD, AS-CEE (P/W)
	27121500-3	BACK PANEL (W)	S902	▲ 25065123	NSS-1258P (W)
A24	27300750	BUSHING (CORD)	T901	▲ 2300724A	NPT-1123D (D)
A26	27190480	HOLDER (LED)		▲ 2300725A	NPT-1120P (P)
A28	834430088	TAP-TIGHT SCREW 3TT+S8BBC		▲ 2300726A	NPT-1120DG (W)
A29	831130088	TAP-TIGHT SCREW 3TTW+S8B	U1	IN119518-2	NAAF-3918-2
A30	830440089	TAP-TIGHT SCREW 4TTIC+S8CBC	U2	IN119566-2	NADIS-4266-2
	8770065	PT WASHER	U3	IN119568-2	NASW-4268-2
A31	833430080	TAP-TIGHT SCREW 3TTP+S8BBC	U4	IN119567-2	NAETC-4267-2
A35	801230	TAPPING SCREW 3STS+S8BQBC	U5	IN119570-2	NAPS-4270-2
A51	87644012	WASHER W4×12F BC	U6	IN119521-2	NAETC-3921-2
A301	28184490A	TOP COVER	U7	IN119571-2	NADG-4271-2
A302	28140837	CUSHION 250×10×9 ^t	Z1	244160	NDM-151, DECK MECHANISM
A303	834440088	TAP-TIGHT SCREW 4TT+S8BBC			
A500	27141493	BRACKET (S)			
A501	IN119121	FRONT PANEL AS (B)			
	IN120121	FRONT PANEL AS (S)			
A504	28185371	SIDE BOARD (L)			
A505	28185372	SIDE BOARD (R)			
A506	837440169	TAP-TIGHT SCREW 4TTI+S6CBC			
A507	87314008	TOOTH LOCK WASHER M-4B			
A514	28191606	CLEAR PLATE			
A525	28400728	CASSETTE LID AS (B)			
-a	28400716A	CASSETTE LID (B)			
-b	28400730	CASSETTE LID (BODY) (B)			
-c	28400722	WINDOW (B)			
-d	28194349	COSMETIC PLATE (WINDOW)(B)			
A525	28400729	CASSETTE LID AS (S)			
-a	28400717A	CASSETTE LID (BODY) (S)			
-b	28400731	WINDOW (S)			
-c	28400722	COSMETIC PLATE (WINDOW)(S)			
-d	28194349	LEG AS			
A631	27175254				
A801	28324475	KNOB (NP) (B)			
	28324476	KNOB (NP) (S)			
A802	28324150-1	KNOB (LEV) (B)			
	28324151	KNOB (LEV) (S)			

NOTE: THE COMPONENTS IDENTIFIED BY MARK ▲ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

TAPE MECHANISM PART LIST

REF.NO.	ADDRESS	PARTS NO.	DESCRIPTION	REF.NO.	ADDRESS	PARTS NO.	DESCRIPTION
1	G1	24606441	LEAD WIRE AS	98	D4	24601261	REEL MOTOR AS
2	G1	24606442	LEAD WIRE AS	98-1	D4	24601169	REEL MOTOR
3	G2	24606443	LEAD WIRE AS	98-2	D4	24611048	SPRING STAND
7	F2	24611481	PLATE (HEAD)	98-3	D4	24610374	WASHER
8	F2	24610943	STEEL BALL 3	98-4	D4	24605467	SPRING
11	F2	24600084	E HEAD	98-5	D4	24602471	IDLER AS
12	F2	24611060	SPACER 0.06t	98-6	D4	24610970	FELT
13	F2	24611061	SPACER 0.03t	98-7	D4	24602237A	GEAR (MOTOR)
14	F2	24611062	SPACER 0.1t	101	B1	24606445	LEAD WIRE AS
15	F2	24610653	BRACKET B (H HEAD)	107	C3	24611043	BRALE PLATE AS
16	F2	24600082	R/P HEAD	107-1	C3	24610999	BRALE RUBBER
18	F2	24610495	ADJUSTING NUT	107-2	C3	24611053A	BRALE PLATE
19	F3	801251	SCREW M2x4	107-3	C3	24605472	SPRING
20	F2	24610652	SHAFT	108	C3	24606446	P.C.B. AS (SENSOR)
21	F2	24605502	SPRING	109	C3	24611482	BRACKET AS
22	F3	24611046	HEAD BLOCK	110	B3	24601266	PAD MOTOR AS
23	F3	24611064	HEAD BASE AS	111	C4	24602532	CAM GEAR
31	G3	24603284	LEVER (READER)	112	B4	24606104	LEAF SWITCH
32	G3	24605506	SPRING	113	B4	24606119	LEAF SWITCH
33	G3	24605507	SPRING (CASSETTE)	114	C4	24611075	CONNECTING PLATE
34	F3	24602270	PINCH ROLLER AS	115	C4	24604064	COLLAR
35	G4	24605244	SPRING	201	F1	833130047	TAP-TIGHT SCREW M3x4
36	F4	24605709	SPRING				
37	G4	24610659A	PROTECTOR	202	F1	82512012	BIND SCREW M2x12
39	F5	24605188	SPRING (CASSETTE)	203	F2	801250	PAN-HEAD SCREW M2+4SW
40	F4	24610351	STEEL BALL (CHASSIS)				
		22) φ2		204	G3	8930251	E WASHER
45	F3	24603205	LEVER (REC)	205	E3	8930201	E WASHER
46	F3	24602271	BELT	206	B1 C2	833125069	SCREW
47	F3	24601167	PULLEY AS	207	F5	801292	TAP-TIGH SCREW M2x3.2
48	F3	24611003	WASHER 1.8x3.8x0.5				
49	F4	24611047	WASHER 2.1x4.5x0.1	208	F5	893030	E WASHER 3
50	E4	24605707	SPRING	209	F3	801263	SCREW M2x3
51	E4	24602478	PINCH ROLLER AS	210	E3	24609014	SCREW M2.5x8
52	E3	24611065	LEVER (ADJUSTING)	211	C4	801325	PAN HEAD SCREW M2+5SW
53	E3	24605510	SPRING				
54	E3	24604065	COLLAR	215	E3	82512603	BIND SCREW
55	E3	24603286	LEVER (SELECTOR)	216	C2	863720	NUT N-2BSNI
56	E4	24605710	SPRING	217	C3	83312604	TAP-TIGH SCREW M2.6x
57	E4	24604052	COLLAR				
58	E4	24611066	LOCK PLATE	218	C4	801259	SCREW M2+3
60	D4	24611141	WASHER 1.7x6x0.25	219	B4	833125059	TAP-TIGH SCREW M2.5+5
61	D4	24602531	GEAR				
62	D3	24610969	WASHER	220	B4	833125209	TAP-TIGH M2.5+20
65	D5	24606447	LEAD WIRE AS	221	C4	833125209	TAP-TIGH 2.6TTP+12S
66	E5	24622057	WASHER	222	C4	863126	NUT N-2.6F
67	E5	24606205	LEAF SWITCH	224	B3	24610515	WASHER
68	E5	24604063	COLLAT	301	B5	24611372	STAND AS (CAPTAN)
69	F5	24611142	WASHER 2.7x0.5	302	B5	24611373	STAND AS (CAPTAN)
70	E5	24611068	BRACKET (SW)	303	A2	24602472	FLYWHEEL
71	E5	82112030	PAN HEAD SCREW	304	B2	24602473	FLYWHEEL
72	F5	24611370	MECHANISM CHASSIS	305	B3	24605452	SPRING (THRUST)
		AS		306	A5	24611485	WASHER
73	E5	24606444	LEAD WIRE	307	B5	24611486	WASHER
91	D3	24610349	WASHER 1.8x3.2x0.5	308	B1	24611376	BRACKET
92	D3	24602534	REEL AS	309	A2	24602476	BELT
94	D3	24611072	SPRING STAND	310	B1	24610723	CUSHION
95	D3	24605505	SPRING	311	B2	24609015	SCREW (MOTOR)
96	D3	24605501	SPRING	312	B2	24611377	THRUST WASHER
97	D3	24611371	BRACKET AS (MOTOR)	313	C1	24601267	CAPSTAN MOTOR AS

FRAME (CASSETTE) EXPLODED VIEW PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	24611451B	PLATE AS (S)
2	24605748	SPRING (L)
3	24605749	SPRING (R)
5	24611457	CUSHION (A)
6	24611450	PLATE (A)
7	24611455A	HOLDER (L)
8	24611456A	HOLDER (R)
9	24605750	SPRING
10	801437	TAPPING SCREW
11	24611459	PLASTIC WASHER
12	24611453B	SIDE BRACKET AS (L)
13	24611454C	SIDE BRACKET (R)
14	24611476B	BACK PLATE (CASSETTE)
15	24611458	CUSHION (B)
16	24603285	LEVER (CHANCEL)
17	8761401005	WASHER FW 4.2×10×0.5×0.5
18	833425059	TAP-TIGHT SCREW 2.5TTP+5C (BC)
19	893030	E WASHER 3
20	833426037	TAP-TIGHT SCREW 2.6TTP+3S (BC)
21	24605753	SPRING
22	831126068	TAPPING SCREW 2.6TTW+6B (BC)
23	24611480	COVER (FW)
24	24605747	SPRING (EJECT)
25	24611380	DUMPER UNIT
26	891024	STOP RING

PRINTED CIRCUIT BOARD PARTS LIST

NAETC-3921-2

CIRCUIT NO.	PART NO.	DESCRIPTION
P301	25045139	HLJ0540-01

NADIS-4266-2

CIRCUIT NO.	PART NO.	DESCRIPTION
Ic		
Q303	22240170	BA6800AS
Q721	22240084	HD614128SA41
Transistors		
Q305, Q306	2213090	DTA114YS
Q722	2213284 or 2213285	2SC1740S-R or 2SC1740S-S
Display		
Q723	212086	BG-801G
Ceramic osc		
X702	3010143	CST3.00MGW
Capacitors		
C351, C352	391941007	10 μ F16V, ELECT.
C353, C354	391942207	22 μ F16V, ELECT.
C721	391941007	10 μ F16V, ELECT.
Resistors		
R351, R352	5215044	N08HR5KBC

NAETC-4267-2

CIRCUIT NO.	PART NO.	DESCRIPTION
Resistors		
R271	5104296	N14RGLC250KMN25Z
R273	5104260	N16RGL50KA25Z
R459	5104271	N14RLC5KB25Z
Switch		
S201-S203	25035611	NPS-122-L573
S601, S602	25035611	NPS-122-L573
S604	25030351	NRSF-113-25SR8

NASW-4268-2

CIRCUIT NO.	PART NO.	DESCRIPTION
LED		
D711, D712	225141	SEL2213C
D714	225137CG	SEL2413CG
	225137DG or 225137DY	SEL2413DG or SEL2413DY
Switch		
S701-S714	25035548	NPS-111-S510
Socket		
P707A	2005230415	NSAS-4P0003
Holder		
	27190764A	HOLDER(LED)

NAPS-4270-2

CIRCUIT NO.	PART NO.	DESCRIPTION
C901	3500065A	0.01 μ F, AC400V/125V, IS
S901	25035558	NPS-111-L520P, POWER SWITCH

NADG-4271-2

CIRCUIT NO.	PART NO.	DESCRIPTION
Q724	24130003	GP1U50XS

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